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Evaluation of the Addition of Emergency Power Generation for the Community Center

We have considered five options to incorporate emergency power into the facility to facilitate operation of an emergency operations area/shelter. For options 2, 3, 4, 5; a chain link fence is included for security around the generator set.

Option 1:
Complete facility on back-up including the new addition. Cleanest option since we are reworking at the power source. Minimal disruption to facility overall. We connect on the utility side and locate the exterior diesel generator set near the existing utility transformer on the east side of the new addition. Opinion of construction cost would be $425,000. Engineering at $26,000
Total Expected Cost: $451,000.

Option 2:
Provide emergency power generation for only the existing community center/Library excluding the new gym/pool addition. The generator would handle the electrical load from the community center chiller unit to maintain A/C. We would need to locate the exterior generator near the existing fenced in area on the north side of the existing/original Community center. Opinion of construction cost would be $200,000. Engineering at $19,000.
Total Expected Cost: $219,000.

Option 3:
Provide emergency power generation for only the existing community center/Library excluding the new gym/pool addition. The generator would NOT handle the electrical load from the community center chiller unit and thereby there would be no cooling. We would need to locate the exterior generator near the existing fenced in area on the north side of the existing/original Community center. Opinion of construction cost would be $145,000. Engineering at $15,000
Total Expected Cost: $160,000.

Option 4:
Provide emergency power generation for only the existing community center/Library excluding the new gym/pool addition. The generator would NOT handle the electrical load from the community center chiller unit and thereby there would be no cooling. Provide additional re-wiring to reduce large loads such as remove the Library from the generator load. We would need to locate the exterior generator near the existing fenced in area on the north side of the existing/original Community center. Opinion of construction cost would be $95,000. Engineering at $10,000
Total Expected Cost: $105,000.

Option 5:
Provide emergency power generation for only the existing community center/Library excluding the new gym/pool addition. The generator would NOT handle the electrical load from the community center chiller unit and thereby there would be no cooling. The generator would only handle select loads. Owner would designate minimal areas to maintain lighting. Would maintain minimum heating/HVAC required. Select power outlets would be maintained. So the generator would serve an emergency panel and these selected loads would be rewired to this panel. Would require the most field investigation of all options. Would also cause the most disruption to facility in order to rewire designated areas/loads. We would need to locate the exterior generator near the existing fenced in area on the north side of the existing/original Community center. Opinion of construction cost would be $67,000. Engineering at $10,000
Total Expected Cost: $77,000.